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ABSTRACT

A method of electromagnetic separation of palladium isotopes places a working substance of metal palladium in a gas-discharge chamber crucible with a source of ions. The working substance is heated to vapors, the vapors of the working substance ionized in the gas-discharge chamber under the action of electron emission from a hot cathode, and ionic beams formed by electrodes of an ion-optical system. The ionic beams separate the isotopes in a magnetic field, entrapping the ions in receiving boxes, the temperature of the gas-discharge chamber being maintained within 1500-1700°C. The method is effectively used for separation of isotopes Pd-102, Pd-104, Pd-105, Pd-106, Pd-108 b Pd-110 with a high enrichment degree.